



# Diabetes News

## Diabetes Dental Tips

**Diabetes can cause serious problems in your mouth. You can do something about it.** If you have diabetes, make sure you take care of your mouth. People with diabetes are at risk for mouth infections, especially periodontal (gum) disease. Periodontal (per-ee-uh-don-tl) disease can damage the gum and bone that hold your teeth in place and may lead to painful chewing problems. Some people with serious gum disease lose their teeth. Periodontal disease may also make it hard to control your blood glucose (blood sugar).

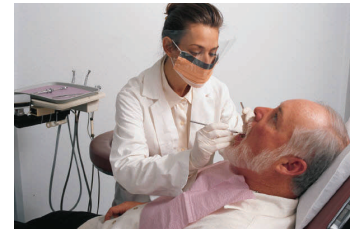
Diabetes can cause dry mouth and a fungal infection called thrush. Dry mouth happens when you do not have enough saliva - the fluid that keeps your mouth wet. Diabetes may also cause the glucose level in your saliva to increase. Together, these problems may lead to thrush, which causes painful white patches in your mouth.

You can keep your teeth and gums healthy. By controlling your blood glucose, brushing and flossing every day and visiting a dentist regularly, you can help prevent periodontal disease. If your diabetes is not under control, you are more likely to develop problems in your mouth.

Take time to check your mouth regularly for any problems. Sometimes people notice that their gums bleed when they brush and floss. Others notice dryness, soreness, white patches or a bad taste in the mouth. All of these are reasons to visit your dentist.

**Follow these steps to keep your mouth healthy.  
Call your dentist when you notice a problem.**

- Control your blood glucose.
- Brush and floss twice a day.
- Visit your dentist at least twice a year for cleanings and check-ups. Be sure to tell your dentist that you have diabetes.
- Tell your dentist if your dentures (false teeth) do not fit right or if your gums are sore.
- Quit using any types of tobacco products. The use of tobacco in any form is a great health concern. Even if you don't smoke, reduce your exposure to secondhand smoke. If you use tobacco products, prepare yourself to QUIT as soon as possible.
  - Set a date to stop and mark it on your calendar.
  - 24 hours before the start date make everyone aware of your goal to stop.
  - Remove the smell of tobacco by cleaning your house and car and remember to get rid of lighters, ashtrays and matches.
  - You can use over-the-counter medication such as nicotine patches and gum.
  - Know what triggers make you want to use tobacco products and be prepared with chewing gum, celery and/or carrot sticks.
  - Kentucky has a free "Quit Now" program that helps you quit using tobacco products. You can contact the "Quit Now" program at 1-800-784-8669 or click here for quit line information online, <http://chfs.ky.gov.dph.ach/cd/quitline.htm>.



## Baked Apple Frittata

**makes 4 servings**

1 cooking spray, canola, with butter flavor, 1/3 sec spray  
1/4 cup flour, all purpose, unbleached, enriched  
1 tbsp packed brown sugar (light brown sugar preferred)  
2 apples, fresh, large, 3 1/4", cored, thinly sliced, and sprinkled with fresh lemon juice (Granny Smith apples preferred)

1 1/2 cup liquid egg substitute  
1/3 cup low fat milk  
1 tbsp fresh thyme

1. Preheat oven to 425 degrees F.
2. Lightly coat a 3-quart ovenproof pan with cooking spray.
3. In a bowl, whisk together egg substitute, milk, and flour. Pour into prepared pan.
4. Toss the apple slices with brown sugar & thyme leaves. Arrange the slices in the middle of the batter.
5. Bake until frittata is puffed, golden brown, & set in center when pan is gently shaken, 8 to 10 minutes.
6. Cut into wedges to serve.

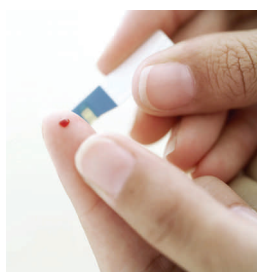


Serving size: 1 slice amounts per serving: Calories 184.9, Total Carbs 26.1, Fiber 2.9 g, Sugars 16.8, Total Fat 3.5 g, Saturated Fat 0.8 g, Unsaturated Fat 2.7 g, Protein 13.1 g, Sodium 179.6 mg  
Dietary Exchanges: Fat 1/2, Fruit 1, Milk -Other, Carbohydrate 1/4, Starch 1/4, Very Lean Meat 1 1/2

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## Hemoglobin A1C

The hemoglobin (**hee-muh-gloh-bin**) A1C test-also called HbA1C, glycated (glī-kā-ted) hemoglobin test or glycohemoglobin- is an important blood test to determine how well your diabetes is being controlled. Hemoglobin A1C provides an average of your blood glucose control over a six to twelve week period and is used



along with home blood glucose monitoring to make adjustments in your diabetes medicines.

Hemoglobin is a substance within red blood cells that carries oxygen throughout the body. When your diabetes is not controlled (meaning that your blood glucose is too high) sugar builds up in your blood and combines with your hemoglobin, becoming "glycated". The more excess glucose in your blood, the more hemoglobin gets glycated. There-

fore, the average amount of sugar in your blood can be determined by measuring a hemoglobin A1C level. If your glucose levels have been high over several weeks, your hemoglobin A1C test will be higher.

How does your A1C look backward? Suppose your blood sugar was high last week. What happened? More glucose hooked up (glycated) with your hemoglobin. This week your blood sugar is back under control. Still, your red blood cells carry the "memory" of last week's high blood glucose in the form of more A1C. The record changes as old red blood cells in your body die and new red blood cells (with fresh hemoglobin) replace them. The amount of A1C in your blood reflects blood sugar control for the past 120 days or the life span of a red blood cell.

For people without diabetes, the normal range for the hemoglobin A1C test is between 4% and 6%. Because studies have shown that out-of-control diabetes results in

complications from the disease, the goal for people with diabetes is a hemoglobin A1C less than 7%. The higher the hemoglobin A1C, the higher the risks of developing complications related to diabetes.

You should have your A1C level measured when your diabetes is diagnosed or when treatment was started. To watch overall glucose control, your doctor should measure your A1C level at least twice a year. This is the minimum. There are times you may need your A1C tested every three months: if you change your diabetes treatment, such as start a new medicine, or if you are not meeting your blood glucose goals.

Although the A1C test is an important tool, it can't replace daily self-testing of blood glucose. A1C tests don't measure your day-to-day control. You can't adjust your insulin on the basis of your A1C tests. But it is a good resource to use along with your daily sugar checks, to work for the best possi-

## A Good Night's Sleep

Sleep disturbances are common in people with diabetes mellitus. Patients with diabetes say more often that they have insomnia, a lot of daytime sleepiness and sensations in the legs that disturb sleep.



Many factors contribute to poor sleep in diabetes. For example, people with adult-onset diabetes may have sleep disorders related to being overweight. One disorder may be sleep apnea. You may have obstructive sleep apnea if you have a history of snoring, breathing pauses during sleep or daytime sleepiness.

How bad your sleep apnea is may be related with the level of blood

glucose and the severity of diabetes. Another common cause of disturbed sleep in diabetics is discomfort or chronic pain in the legs or arms. Patients with diabetes, particularly those with peripheral (*puh-rif-er-uh*) neuropathy (*noo-rop-uh-thee*), have restless legs syndrome and periodic limb movements that can cause difficulty falling asleep as well as staying asleep. People with restless legs complain of uncomfortable feelings in the legs and sometimes arms during rest. These feelings are relieved with movement. Finally, glucose levels going too high or too low while you sleep and night sweats may also relate to disturbed sleep in some patients.

You may help your body prepare for being well rested by using good sleep-smart habits during your day. Try to wake up at the

same time every day. This will help to set a schedule for your body. Also, going to the gym can help you fall asleep more easily. You should also try avoiding caffeine consumption in the afternoon. Some studies show that soaking in warm water before heading to bed will assist you in the transition of deeper sleep.

Taking good care of yourself will make you count less sheep and score more sleep. This can make all the difference in your diabetes life.



If you are not getting a good night's sleep talk to your health-care professional.

## Benefits of Exercise

Regular physical activity is very therapeutic for people with diabetes. Positive benefits of exercise include:

- Social benefits
  - o Exercising with friends or family.
  - o Participating in community-based activities.
- Psychological benefits
  - o Reduced stress, anxiety and depression.
  - o Increased feelings of well-being.
- Health benefits
  - o Improved glucose control.
  - o Weight control.
  - o Improved lipid profiles.

- o Decreased blood pressure.
- o Increased work capacity.

Spread out your activities throughout the day. Five (5) to ten (10) minutes here and there add up over time. People think exercise means using a specific machine or playing a preferred sport, but physical activity could be many things from doing housework to taking stairs instead of the elevator. Increased physical activity can lead to a longer life and improved health.



## What is Exercise?

Exercise is known as physical activity and includes anything that gets you moving, such as walking, dancing or working out in your yard. You can have the benefits of being physically active without going to a gym, playing sports or using fancy equipment. When you're physically fit, you have the strength, flexibility and endurance needed for your daily activities. Being physically active helps you feel better physically and mentally.

But did you know that exercise can also help you reduce your blood glucose levels?

That's right. In people with type 2 diabetes, exercise may im-

prove insulin sensitivity and assist in lowering elevated blood glucose levels into the normal range.



Here's why. When you exercise, your body uses more oxygen -- as much as 20 times more -- and even more in the working muscles, than when you are at rest.

So the muscles use more glucose to meet their increased energy needs.

Physical activity can also lower blood pressure and cholesterol. It also reduces your risk for heart disease and stroke, relieves stress and strengthens your heart, muscles and bones. In addition, regular activity helps insulin work better, improves your blood circulation and keeps your joints flexible. If you're trying to lose weight, a combination of physical activity and wise food choices can

help you reach your target weight and maintain it. All of these benefits can be yours even if you haven't been very active before.

## What Should I Do to Get Started on a Physical Activity?



Talk to your healthcare team about which activities will be safe for you. Your healthcare provider's advice will depend on the condition of your heart, blood vessels, eyes, kidneys, feet and nervous system. They may recommend that you have an exercise stress test to see

how your heart reacts to exercise. If the tests show signs of disease, ask what physical activities will help you without making your conditions worse.

Start slowly. Allow yourself to get into a routine. Be flexible and don't get discouraged. Reward yourself for your efforts. Try not to compare yourself to others. Your goal should be enjoyment and personal fitness. Think about whether you like to be alone or with other people, outside or inside and

what time of the day is best. If you miss a week, remind yourself of all of reasons why you started exercising and how far you've come. Don't quit.

Learn how your blood glucose responds to exercise. Everyone's blood glucose response to exercise is different. Checking your blood glucose before and after exercise can show you the benefits of activity. You also can use the results of your blood glucose checks to prevent low blood glucose or high blood glucose.

Wear a medical identification bracelet, necklace or a medical ID tag to protect yourself in case of emergency.



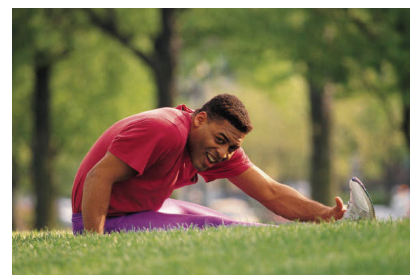


# How to Get the Most Out of Exercising - Without Doing Yourself Harm

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It's important to make sure you don't cause any harm while you're exercising. Here are some tips to make sure:

- Protect your feet:
  - ✓ Wear cotton or cotton-polyester blend socks to keep your feet dry and prevent blisters.
  - ✓ Consider using silica gel or air midsoles in your shoes.
- Drink plenty of water, since dehydration can have bad effects on blood glucose levels and heart function:
  - ✓ Drink 17 oz of fluid 2 hours before exercise.
  - ✓ Drink fluids during exercise, particularly in hot weather.
- Include a proper warm-up and cool-down period:
  - ✓ Warm-up: 5-10 minutes of aerobic activity such as walking or cycling at a low level. This prepares your skeletal muscles, heart, and lungs for an increase in exercise.
  - ✓ Stretch: 5-10 minutes before or after your warm-up.
  - ✓ Cool-down: 5-10 minutes, similar to your warm-up. This will gradually bring your heart rate down to its pre-exercise level.



Participate only in moderate weight training programs, using light weights and high repetitions for maintaining or enhancing upper body strength. High-resistance exercise using weights may be acceptable for young people with diabetes but should be avoided by those who are older or have long-standing diabetes.

## Types of Exercise

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### Flexibility Exercises

Flexibility exercises, also called stretching, help keep your joints flexible and reduce your chances of injury during other activities. Gentle stretching for 5 to 10 minutes helps your body warm up and get ready for aerobic activities such as walking or swimming.

### Aerobic Exercise

Aerobic exercise increases your heart rate, works your muscles and raises your breathing rate. For most people, it's best to aim for a total of about 30 minutes a day, at least 5 days a week. If you haven't been very active recently, you can start out with 5 or 10 minutes a day and work up

to more time each week. Or split up your activity for the day -- try a brisk 10-minute walk after each meal.



- Take a brisk walk (outside or inside on a treadmill)
- Go dancing
- Take a low-impact aerobics class
- Swim or do water aerobic exercises
- Try ice-skating or roller-skating

- Play tennis
- Stationary bicycle indoors

### Strength training

Strength training, done several times a week, helps build strong bones and muscles and makes everyday chores like carrying groceries easier for you. With more muscle, you burn more calories, even at rest.

- Join a class to do strength training with weights, elastic bands or plastic tubes
- Lift light weights at home. Your equipment can be as simple as a tube sock filled with beans or pennies or filling a half gallon milk jug with water or sand.

# Strawberry Smoothie

**makes 3 servings**

2 tbsp sugar  
2 cup Strawberries, frozen, unsweetened  
(fresh strawberries can be substituted)

1 tsp fresh lemon juice  
1 cup Yogurt, vanilla, low fat



1. Use a food processor or blender, and mix together at high speed the strawberries, sugar, lemon juice, and yogurt until it is well blended.
2. Refrigerate or serve immediately.

1 serving Amount per serving: Calories 115.4, Total Carbs 24.9 g Dietary Fiber 0.3 g, Sugars 22.4 g, Total Fat 0.8 g, Saturated Fat 0.5 g, Unsaturated Fat 0.3g, Protein 2.7 g, Sodium 50.0 mg  
Dietary Exchanges: Fat ¼, Other Carbohydrate 1½  
provided through dLife.com

## Diabetes Management Schedule

Adults with diabetes should receive medical care from a coordinated team of healthcare professionals. Referrals to these team members should be made as appropriate.

### At each regular visit:

- ✓ Measure weight and blood pressure.
- ✓ Inspect feet.
- ✓ Review self-monitoring glucose record.
- ✓ Review/adjust medications to control glucose, lipids and blood pressure.
- ✓ Review self-management skills, dietary needs and physical activity.
- ✓ Assess for depression/mood disorders.
- ✓ Counsel on tobacco and alcohol use.

### Quarterly (every 4 months):

- ✓ Obtain A1C in patients whose therapy has changed or who are not meeting glycemic goals (twice a year if at goal with stable glycemia [glahy-see-mee-uh]).

### Semi-Annual (every 6 months):

- ✓ Obtain dental/oral exam and cleaning.

### Annually (every year):

- ✓ Obtain fasting lipid profile.
- ✓ Obtain serum creatinine to stage the level of chronic kidney disease.
- ✓ Perform urine test for albumin-to-creatinine ratio in patients with type 1 diabetes more than 5 years and in all patients with type 2 diabetes.
- ✓ Refer for dilated eye exam.
- ✓ Perform comprehensive foot exam.
- ✓ Administer influenza vaccination.
- ✓ Review need for other preventive care or treatment.

### Lifetime:

- ✓ Administer pneumococcal (noo-muh-kok-uh 1) vaccination (repeat if over 64 or immunocompromised (i-myōō'-kōm'prə-mīzd) and last vaccination was more than 5 years ago).



*This information is for educational purposes, it is not intended to replace medical advice from your healthcare provider.  
Please consult your healthcare provider for advice about a specific medical condition.*